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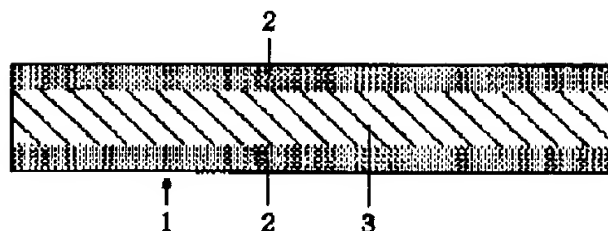
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APPLICANT : HONDA TOMIYASU;

INVENTOR : HONDA TOMIYASU;

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TITLE : COMPRESSED WOODEN MATERIAL
AND PRODUCTION THEREOF



ABSTRACT : PROBLEM TO BE SOLVED: To enhance bending strength, surface smoothness and surface hardness in spite of light wt. and to prevent warpage or distortion because inside and outside balance is kept by heating and compressing a wooden material of which the water content is adjusted to a fiber saturation point or less to form compacted hard layers on both upper and lower surfaces of the wooden material.

SOLUTION: A wooden material 1 itself is not raised in temp. as a whole even at a time of hot pressing and subsequently easily cooled by releasing pressure. Cellulose being a fibrous material remains in wood texture without being thermally cured and hemicellulose and lignin softened and melted at the time of hot pressing act on cellulose as an adhesive. Therefore, the spring back of the wooden material accompanied by the release of pressure after heating pressure compression is minimized and compacted hard layers 212 are formed on both upper and rear surfaces of the wooden material. By heating and compressing the wooden material of low water content equal to or lower than a fiber saturation point, only the parts near to the upper and rear surfaces of the wooden material are compacted to form the hard layers 212.

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